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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,370	02/12/2002	Don W. Cochran	PSS 2 0073	5725

7590 04/29/2003  
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EXAMINER

GIBSON, RANDY W

ART UNIT PAPER NUMBER

2841

DATE MAILED: 04/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/074,370

Applicant(s)

COCHRAN ET AL.

Examiner

Randy W. Gibson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner..
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed December 12, 2002 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. "Various brochures and other materials" in the "Other Art" section is not the detailed listing required by the federal rules. In addition, the examiner notes that none of these documents is dated as required by the federal rules, there is no explanation of the relevance of any of these documents, and there is no explanation of what relationship that AGR-Topwave, LLC has to the inventors. Without a context, these documents are meaningless. These documents have been placed in the application file, but the information referred to therein has not been considered, and it is not possible to list these documents on the front of any patent that might issue.

The examiner also notes that an enclosed copy of a letter (entitled "Introducing PETWall®") from David Dineff, Product Marketing Director, refers to "patented technology" that uses "infrared light absorption techniques" to determine the thickness of PET containers. The examiner has not been able to locate any U.S. or foreign patents assigned to AGR-Topwave that mention this technology. The examiner also notes a lack of any "prior art" figures in the present application that show this previously patented technology. Applicant is required to supply to the PTO any known patents that cover the "patented technology" referred to in the letter.

***Claim Objections***

2. Claims 1-46 are objected to because of the following informalities: the term "volume" in the claims is apparently used in the claims to mean "a thickness of a specified region of the external wall of a container," while the accepted meaning of volume is "the interior empty capacity of a container" (a definition that the applicant is apparently trying to disclaim in the written description). While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). Applicant's current use of the term in this context is potentially confusing and unclear and makes it difficult to ascertain the metes and bounds of the claim. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4-15, and 39-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Huttunen et al (US # 4,304,995). By measuring the thickness of the wall, Huttunen et al is inherently measuring the "volume of the selected region" as applicant has defined the term "volume" (the width is apparently 1 unit defined by the width of the

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beam). The fact that the lamp, or detector, has to be placed inside of the bottle means that there has to be an "article positioning subsystem" to allow the rod 29 to be placed through the bottle neck (Col. 4, lines 4-45). The device also has a chopper wheel (4) and a correction means (Col. 6, lines 3-61).

5. Claims 1, 4, 9, 10, 13, 15, 17, 19-21, 24, 29, 40, 41, and 43-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Repsch (U.S. # 4,720,808). Repsch discloses the claimed invention including an electromagnetic radiation source (Col. 3, lines 21-23), a sensor apparatus (4), a field of view (Col. 3, lines 24-34), an article positioning subsystem (Col. 3, lines 35-53), and a processor (10) configured to calculate mass of a selection region of an article (Col. 3, line 66 to col. 4, line 31).

6. Claims 1, 4, 9, 10, 13, 15, 17, 19-21, 24, 29, 40, 41, and 43-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Vogeley, Jr. (U.S. # 5,585,603). Repsch discloses the claimed invention including an electromagnetic radiation source (8), a sensor apparatus (14), a field of view (12), an article positioning subsystem (Col. 4, line 65 to col. 5, line 21), and a processor configured to calculate mass of a selection region of an article (Col. 6, lines 10-36).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 16-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huttunen et al (US # 4,304,995) in view of Fumoto (U.S # 4,510,389). Huttunen et al discloses the claimed invention except for the optical bandpass filter integrated into the optical path of the sensor. However, Fumoto teaches that it is known to insert an optical bandpass filter into the optical path of an infrared sensor in a thickness gage such as the one disclosed by Huttunen et al motivated by the desire to increase accuracy by filtering out ambient light. The use of variable apertures, spatial light modulators, and lenses are well known from the camera art and would have been obvious to the ordinary practitioner motivated by the desire to increase accuracy. Solid state LEDs are common light source and their use would have been an obvious and known functional equivalent to the disclosed light bulb. The technique of pulsing the infrared light source, instead of using a chopper wheel, to create a varying light source is an obvious and known functional equivalent.

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**Conclusion**

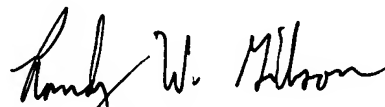
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Esztergar discloses that EM sensors normally have an inherent limited responsiveness to specific wavelengths of electromagnetic radiation (Col. 7, lines 2-36). Wong et al show infrared LEDs and optical filters being used in a density detector (Col. 3, lines 44-60; Col. 4, lines 38-66). Baldwin shows a camera in a bottle inspection system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy W. Gibson whose telephone number is (703) 308-1765. The examiner can normally be reached on Mon-Fri., 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-5115.

April 24, 2003

  
Randy W. Gibson  
Primary Examiner  
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